Appendix A Data Appendix

A.1 Evaluation and Admissions Process

The admission process starts with a call for applications in early summer. Applications are quite thorough, asking a variety of details including the core technology, current and future customers, revenue model and pricing strategy, intellectual property protection strategy, the amount of time and money expensed on the company, past grants and external funding, and work and educational histories of each founder. Evaluation is iterative but center around three criteria that the company should be scalable, seed-stage, and technology-based. The first few rounds of due diligence are done by designated SEP staff who are experienced in evaluating and supporting startups. The background of these SEP staff is similar to investment associates at VC firms. After the initial screening, promising applicants and SEP staff meet at least once via phone or in-person interview.

Shortlisted companies are then required to participate in a technical assessment with Ph.D. scientists from academia or from governmental research organizations such as the Canada National Research Council (more on scientists below). Candidates that pass this stage participate in an intensive full-day event where they are interviewed and evaluated by additional SEP staff, investors, and second-year MBA students. The MBA evaluators are students registered in the SEP-affiliated course at the business school and conduct the evaluations as a course assignment. The final admission decisions are the culmination of the scores and reports produced by all interviewers.

A.2 Scientific Experts and Technical Quality Assessment

In addition to conducting technical assessments, scientific experts participate in sessions to translate technological challenges for non-technical business mentors and to provide technical guidance to founders. For technical assessments, the review process is based on written details provided by founders followed by an interview, after which scientists prepare a report on the quality of the core technology and technical ability of each company. If a startup is admitted, this report is included in the first session's dossiers distributed to mentors.

During sessions, scientists are called upon to weigh in on mentors' questions regarding the technical claims and challenges of the startups. For more complex deep-science firms, SEP

coordinates additional meetings between founders and scientists so that scientists can prepare a non-technical overview of the core technology and articulate their thoughts on the feasibility of technical claims.

While scientists cannot "vote" to keep companies in the program, they may raise their hand to meet with founders for providing technical guidance. This usually happens in response to the founders asking for their help. Though there is no minimum time commitment, SEP managers follow up with founders and scientists to facilitate post-session advisory meetings in the same way that they follow up with business mentors.

A.3 Technology Streams

From the 2012-13 to 2014-15 program years, SEP was a single-stream single-site program with an annual cohort size of approximately 20 startups. With the rapid commercialization of neural networks-based machine learning techniques, SEP introduced its first specialized stream on AI in 2015-16. Mentor composition included investors who had recently invested in AI companies such as BloombergBeta as well as successful former entrepreneurs and scientists who had specialized knowledge of the field. Given the success of this first specialized program, additional streams were added in subsequent years, with the health stream being the first to follow. Startups that do not fit in any of the existing specialized categories but meet the main requirements of being scalable, seed-stage, and technology-based are admitted to the general stream.

A.4 Sample Construction and Attrition

Startups: 1,925 startups applied to the 2018-19 cohort of SEP, from which 389 were admitted to the program. Of this set, 95 were dropped from the program after their first session because they received no mentorship interest at all. Six more startups were dropped because the business objectives of the startup could not be found. One was dropped because it participated in only two sessions in which there were only VC mentors. Finally, 34 startups were dropped because only mentors who were neither a VC nor an angel mentored them (e.g., exited entrepreneurs who are not active investors). The process yields the 253 startups in my sample.

Mentors: From the 262 mentors who committed their time at least once, 55 were dropped because

they were neither an angel nor a VC, 14 were dropped because they were both an angel and a VC (made both personal and partner investments), and 1 VC was dropped because they only participated in VC-only mentoring sessions. This process yields the 192 mentors in my analysis.

A.5 Quality of Business Objectives

To ensure consistency in the quality of objectives, objectives must be 1) measurable, 2) feasible, and 3) agreeable to founders. The first requirement is to ensure verifiability: that the objective must be designed such that a member of staff can verify whether it is completed or not. The second requirement is to limit scope: that larger milestones are broken up into small enough objectives that are achievable within two months. The final requirement is to ensure accountability: that ultimately, it is the entrepreneur who must achieve the objectives.

SEP managers are responsible to train founders on how to design objectives according to these requirements. Moderators (business school faculty) do the same for mentors early in the morning of each session day, before one-on-one meetings commence. If an objective does not meet these requirements, the moderator points it out for revision during group discussions.

A.6 Strategic Behavior in Mentoring Decisions

Do mentors select startups to minimize information asymmetry with potential investment targets rather than based on their ability to help them achieve their objectives? In settings like SEP, where mentoring decisions are common knowledge, opportunistic behavior can entail reputational costs (see Gneezy *et al.*, 2011). These costs are expected to limit strategic behavior (Ariely *et al.*, 2009), especially in settings such as venture capital where reputation and trust underlie long-term success (Sorenson & Stuart, 2001; Gompers & Lerner, 1999).

Furthermore, investors can only signal higher value-added potential by providing more effective advice than the competition. In my setting this limits strategic behavior because the quality of advice is also common knowledge. Offering poorer advice undermines the perceived value-added potential of the investor, particularly from the perspective of high-quality startups the investor intends to learn about and potentially invest in.

Lastly, matching by expertise alleviates information asymmetry issues (Gompers & Lerner,

2001) more than matching by deal potential. Investors rely on their expertise in assessing the risks and the promise of business ideas (Sorensen, 2007; Ewens & Rhodes-Korpf, 2015; Sorenson & Stuart, 2001), so aggregating judgment from multiple experts reveals more information about a future investment's potential than aggregating judgment from non-experts. This is consistent with the observation that investors cooperate in mentoring to improve startup ecosystems, which ultimately enhances the pipeline of investable companies (Miller & Bound, 2011).

A.7 Deliberations Protocol

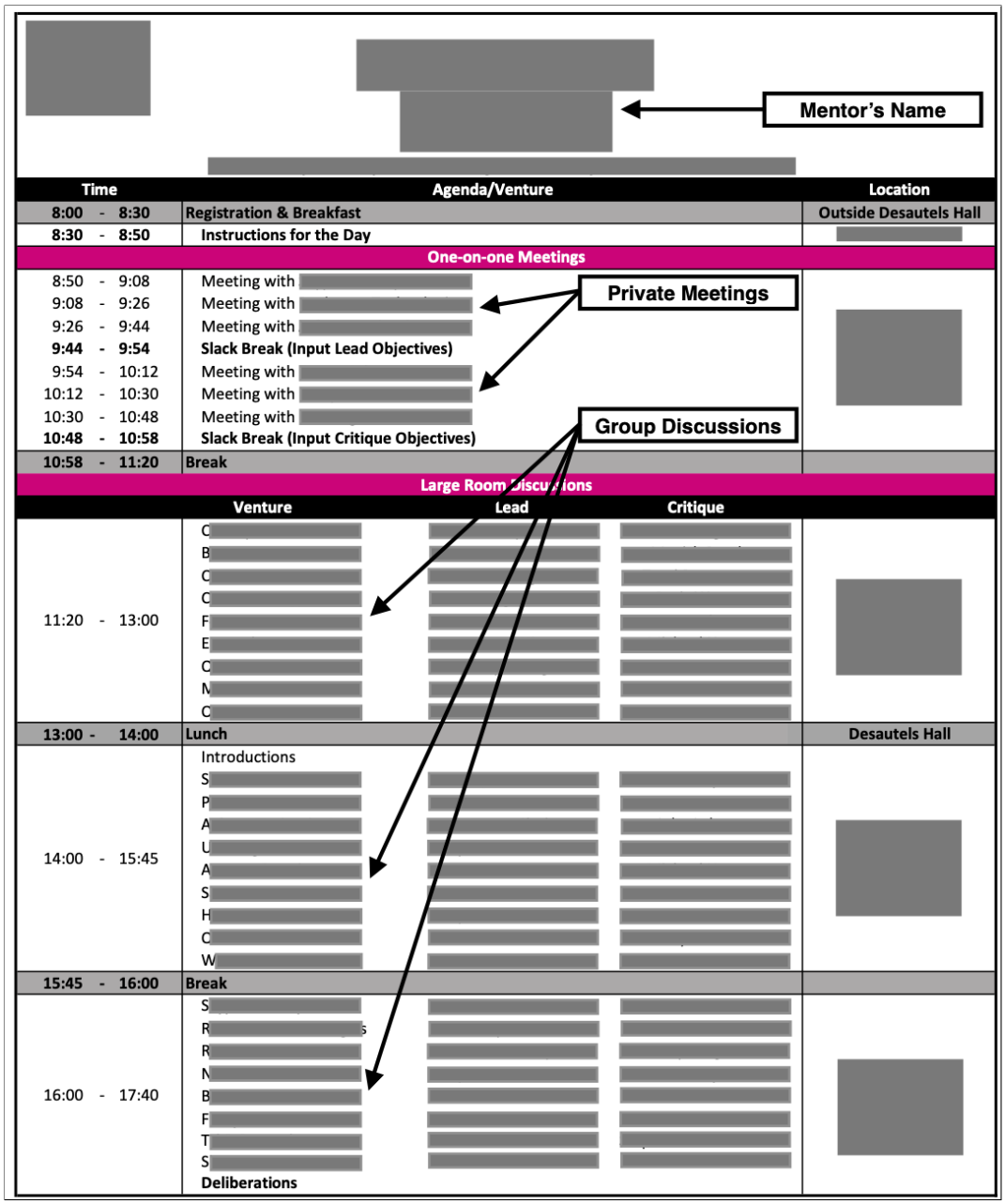
In practice, the deliberations begin by founders leaving the room, and the moderator providing deliberation instructions, highlighting the four-hour time commitment to help founders achieve their objectives. Then, the moderator asks mentors to raise their hand if they wish to mentor the first startup, while a staff shows summary information about the startup and their objectives on the screen to refresh everyone's memory. This procedure repeats for each startup and lasts about 30 minutes. Mentors are separately asked to raise their hand if they wish SEP to facilitate a financing meeting with the startup, which comes with no obligations. This helps mitigate adverse selection into mentoring due to financial incentives.

Appendix B Additional Figures and Tables

Figure B1: Landing Page of Andressen Horowitz Dedicated Seed Fund

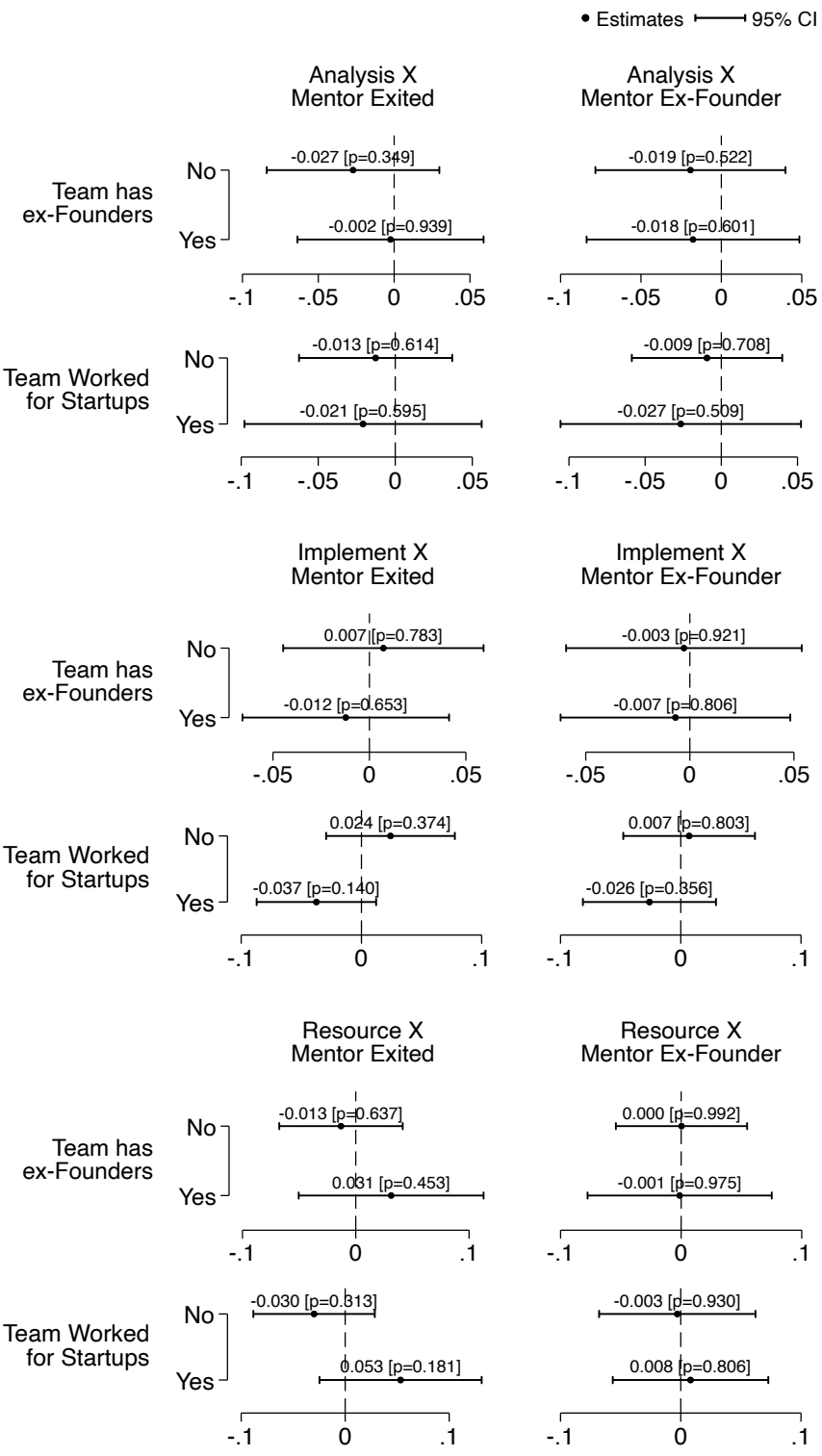
Notes: This image is a screenshot of the main webpage of the Andreessen Horowitz's dedicated seed fund. Website is located at www.a16z.com/seed and is accessed on December 14, 2023.

Figure B2: Sample Mentor Schedule



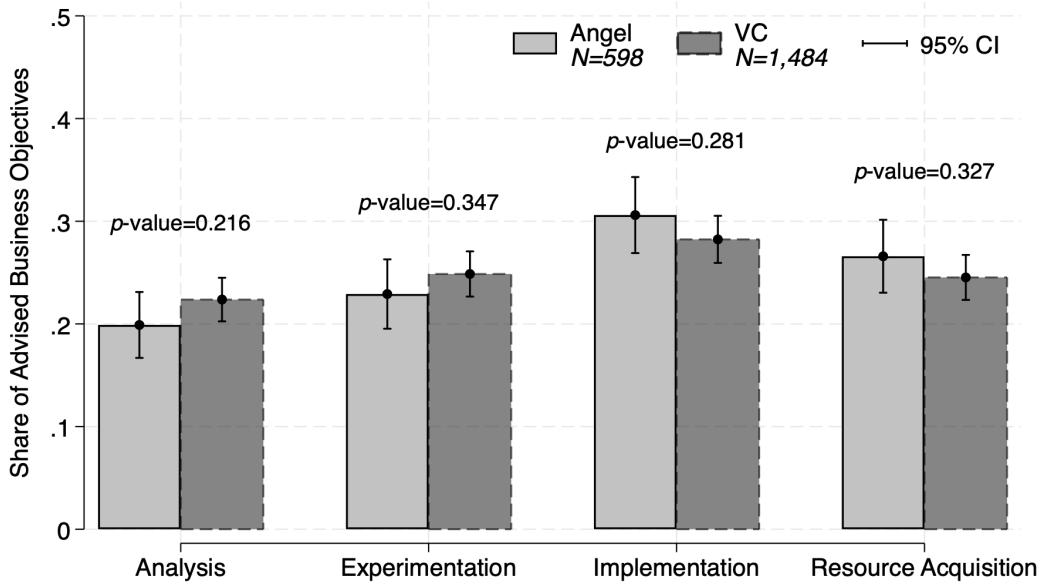
Notes: This image shows a sample mentor schedule. Each mentor schedule has personalized and common sections. The personalized section is at the top annotated as "Private Meetings." This section indicates the subset of the track's startups the mentor meets on a one-on-one basis. The second part is common to all the track's mentors and is annotated as "Group Discussions." This portion shows the sequence of the appearance of startups for debates in the group setting. The columns "Lead" and "Critique" denote the name of mentors who will kick-off the discussion with their suggested revisions on the proposed objectives from one-on-one meetings. Portions that may reveal the identify of startups or SEP are redacted.

Figure B3: Heterogeneity of Analysis, Implementation, and Resource Acquisition Advice by Founder and Mentor Experience



Notes: This figure replicates Figure 7 replacing the variable Experimentation with Analysis (top), Implementation (middle), and Resource Acquisition (bottom).

Figure B4: The Explicit Advice of Angel Investors and Venture Capitalists



Notes: This figure shows the priority of each activity types explicitly advised by angels and VCs during one-on-one feedback sessions. These feedback sessions take place before the moderated meetings with all mentors when objectives are finalized.

Table B1: The Panel Structure of Data

Mentor i	Startup j	Session t	Mentor is Angel $Angel_i$	Priority is Experimentation $Experiment_{jt}$	Gave Advice $Advice_{ijt}$
041	1313	1	1	0	1
118	1313	1	0	0	0
213	1313	1	0	0	0
325	1313	1	0	0	0
365	1313	1	0	0	0
378	1313	1	0	0	0
391	1313	1	0	0	0
441	1313	1	0	0	0
908	1313	1	0	0	1
909	1313	1	1	0	0
911	1313	1	1	0	0
912	1313	1	0	0	0
913	1313	1	0	0	0
918	1313	1	1	0	0
118	1313	2	0	1	0
213	1313	2	0	1	0
325	1313	2	0	1	0
378	1313	2	0	1	0
391	1313	2	0	1	0
441	1313	2	0	1	0
908	1313	2	0	1	1
909	1313	2	1	1	0
911	1313	2	1	1	1
912	1313	2	0	1	0
912	1313	2	0	1	0
918	1313	2	1	1	1
920	1313	2	0	1	0
933	1313	2	1	1	0

Notes: This table shows two panels of mentoring decisions for a given startup.

Table B2: Univariate Difference in Means Tests by Investor and Activity Types

	Angel Investor	Venture Capitalist	t-statistic
Panel A: Mean(Priority) Conditional on Advice			
Analysis	0.67	0.80	-2.24^{**}
Experimentation	0.87	0.69	3.19^{***}
Implementation	0.84	0.81	0.61
Resource Acquisition	0.62	0.71	-1.70^{*}
Panel B: Prob(Advice) Conditional on Priority			
Analysis	0.08	0.13	-2.82^{***}
Experimentation	0.22	0.10	5.58^{***}
Implementation	0.12	0.11	0.12
Resource Acquisition	0.12	0.11	0.17

Notes: Panel A shows the mean priority of activity types conditional on receiving advice from angels versus from VCs. Panel B shows the probability of receiving advice by angels and by VCs conditional on the activity type being the highest priority of the startup. Statistical significance is *(10%), **(5%), or ***(1%).

Table B3: Robustness of the Main Result to Alternative Measures of Experimentation and FE Logits

DV = Advice Experiment Measure:	(B3-1) Indicator (0-3)	(B3-2) Continuous (0-3)	(B3-3) Binary (>0)	(B3-4 Main (FE Logits)	(B3-5) Low-Broad	(B3-6) High-Broad
Experimentation		−0.014*	−0.005	−0.286**	−0.035***	−0.029**
		(0.007)	(0.012)	(0.127)	(0.013)	(0.012)
Experimentation=1	0.006					
	(0.012)					
Experimentation=2	−0.038**					
	(0.017)					
Experimentation=3	−0.049					
	(0.035)					
Angel × Experimentation		0.053***	0.035*	1.139***	0.126***	0.110***
		(0.015)	(0.020)	(0.208)	(0.024)	(0.024)
Angel × Experimentation=1	−0.000					
	(0.019)					
Angel × Experimentation=2	0.136***					
	(0.032)					
Angel × Experimentation=3	0.221**					
	(0.089)					
Revenue Positive	−0.014	−0.016	−0.017	0.020	−0.016	−0.017
	(0.018)	(0.017)	(0.017)	(0.108)	(0.017)	(0.017)
AbvMed Funding	0.006	0.008	0.007	−0.023	0.005	0.005
	(0.018)	(0.018)	(0.018)	(0.084)	(0.018)	(0.018)
Open Round	0.010	0.008	0.009	−0.002	0.009	0.009
	(0.014)	(0.013)	(0.013)	(0.083)	(0.013)	(0.013)
N	7,914	7,914	7,914	7,914	7,914	7,914
Mean of DV						0.120
Startup FE	X	X	X		X	X
Mentor FE	X	X	X	X	X	X
Session FE	X	X	X		X	X

Notes: This table shows robustness tests for the main results in Table 4. Column B3-1 replaces *Experimentation* with indicators for the number of objectives (no experimentation is the omitted category). Columns B3-2 and B3-3 re-specify *Experimentation* as, respectively, a continuous variable and an indicator for at least one experimentation prioritized. Column B3-4 estimates a fixed-effects logits model of advice. Columns B3-5 and B3-6 broaden the definition of experimentation to include business planning, and business planning and choosing market, respectively. Standard errors clustered by mentor are reported in parentheses. Statistical significance is *(10%), **(5%), or ***(1%).

Table B4: The Probability of Angels vs. VCs to Provide Advice on Analysis, Implementation, and Resource Acquisition

DV = Advice	(4-1)	(4-2)	(4-3)	(4-4)	(4-5)	(4-6)
Panel A:						
Angel	0.008	0.008	0.021*			
	(0.010)	(0.009)	(0.011)			
Analysis	−0.004	−0.005	0.015	0.018	0.019	0.020
	(0.010)	(0.013)	(0.014)	(0.015)	(0.015)	(0.015)
Angel × Analysis			−0.074***	−0.078***	−0.078***	−0.078***
			(0.021)	(0.021)	(0.021)	(0.021)
Panel B:						
Angel	0.008	0.008	0.009			
	(0.010)	(0.009)	(0.009)			
Implementation	−0.007	−0.007	−0.006	−0.004	−0.003	−0.003
	(0.009)	(0.010)	(0.013)	(0.013)	(0.013)	(0.013)
Angel × Implementation			−0.003	−0.008	−0.009	−0.008
			(0.022)	(0.022)	(0.022)	(0.022)
Panel C:						
Angel	0.007	0.008	0.010			
	(0.010)	(0.009)	(0.010)			
Res. Acquisition	−0.006	0.003	0.007	0.005	0.000	−0.003
	(0.012)	(0.015)	(0.017)	(0.017)	(0.018)	(0.018)
Angel × Res. Acquisition			−0.015	−0.015	−0.016	−0.015
			(0.027)	(0.028)	(0.028)	(0.028)
N	7,914	7,914	7,914	7,914	7,914	7,914
Mean of DV						0.120
Startup FE		X	X	X	X	X
Mentor FE				X	X	X
Session FE					X	X
Controls						X

Notes: This table shows the relationship between the type of mentor and the type of advice provided. Standard errors clustered by mentor are reported in parentheses. Statistical significance is *(10%), **(5%), or ***(1%).

Table B5: Tests of Alternative Explanations: Additional Measures

Explanation:	Deal Flow Incentives			Stage Preferences					
DV =	Advice			Advice					
	(B5-1)	(B5-2)	(B5-3)	(B5-4)	(B5-5)	(B5-6)	(B5-7)	(B5-8)	(B5-9)
Sample:	Full Sample	BlwMed Runway	AbvMed Runway	Pre-Revenue	Post-Revenue	No Prototype	Has Prototype	BlwMed Age	AbvMed Age
Experimentation	−0.043***	−0.036	−0.044*	−0.033**	−0.058**	−0.044***	−0.059**	−0.046**	−0.041*
	(0.014)	(0.024)	(0.025)	(0.016)	(0.024)	(0.016)	(0.027)	(0.019)	(0.021)
Angel × Experimentation	0.141***	0.140***	0.135***	0.092**	0.251***	0.138***	0.170**	0.148***	0.137**
	(0.028)	(0.042)	(0.045)	(0.038)	(0.056)	(0.027)	(0.083)	(0.033)	(0.054)
Open Round	0.013								
	(0.015)								
Angel × Open Round	−0.012								
	(0.021)								
N	7,914	3,862	4,051	4,983	2,928	5,815	2,094	4,412	3,500
FEs & Controls	X	X	X	X	X	X	X	X	X

Notes: Standard errors clustered by mentor are reported in parentheses. Statistical significance is *(10%), **(5%), or ***(1%).

Table B6: The Relationship between Completing Objectives and either getting Immediately Dropped or Graduating

Sample:	Session 1		Session 1 & Experimenting	
DV = Immediate Drop or Graduation	(B6–1)	(B6–2)	(B6–3)	(B6–4)
Completed Objectives in:				
Analysis	−0.021	−0.012	−0.004	−0.047
	(0.084)	(0.077)	(0.116)	(0.108)
Experimentation	0.095**	0.098*	0.094**	0.106**
	(0.034)	(0.038)	(0.035)	(0.036)
Implementation	0.057	0.056	0.177	0.211
	(0.115)	(0.136)	(0.186)	(0.188)
Resource Acquisition	0.046	0.030	−0.033	0.012
	(0.080)	(0.068)	(0.072)	(0.078)
N	209	209	120	120
Mean of DV		0.670		0.683
Stream FE		X		X
Site FE		X		X

Notes: This table shows the correlation between completing different objectives and success, where success is defined as either immediate shutdown, measured by being dropped from the program at session 2, or graduating from the program by surviving all four sessions conditional on not being dropped at session 2. All models control for the number of objectives attempted in each of the four activity categories, with one category being dropped since objectives always sum to three. Standard errors cluster by site are in parentheses. Statistical significance is *(10%), **(5%), or ***(1%).

Appendix C Non-Focal Determinants of Selection

Bengtsson & Hsu (2015) and Hegde & Tumlinson (2014) have documented the role of homophily based on coethnicity in startup-investor matches though with mixed results on the performance implications. A potential reason for the mixed findings on performance is that, because investment decisions are driven by assortative matching, these studies cannot disentangle the determinants of founder preferences from those of investor preferences. My setting offers the opportunity to re-visit homophily in the context of advice, and with a focus on investor preferences. For the determinants of match, I gather data on a range of demographic and educational backgrounds, notably on race. Then, I examine to what extent these factors predict both the provision and quality of advice.

In terms of measures, I measure race using the probability that each person is White, Black, Hispanic, or Asian. This measure is obtained by linking last names with census information on the distribution of race by last name. Then I create a variable for race equal to the cumulative probability that the mentor's race is the same as the race of all members of the founding team. The second measure is gender, which is an indicator equal to 1 if the mentor is female and there is at least one female founder on the team, or if the mentor and all founders are male. For educational degrees, I create indicators for STEM, PhD, and Business Degree that each equal 1 if the mentor and at least one member of the founding team has one of these degrees. Country is an indicator that equals 1 if the mentor's and company's country of residence are the same.

Results are shown in Table C7. The first two columns show that the probability that race is not a strong predictor of the decision to provide advice, but conditional on mentoring a startup, teams with higher probability of shared race are significantly less likely to complete their objectives. Though race is cruder than ethnicity, the performance result is broadly consistent with the idea that shared observable characteristics loosen screening protocols. A factor that is strongly predictive of mentoring decisions, though not predictive of advice quality, is whether both the mentor and the founding team have a Ph.D. degree. An explanation for this finding is that an advanced degree may facilitate technical communication, but does not necessarily endow business expertise.

Table C7: Selection based on Gender, Race, and Educational Background

DV:	Advice		Completion			
	(C7–1)	(C7–2)	(C7–3) Unweighted	(C7–4) Unweighted	(C7–5) Weighted	(C7–6) Weighted
Experimentation		−0.044***				
		(0.014)				
Angel × Experimentation		0.143***		0.027		0.010
		(0.028)		(0.036)		(0.030)
Experienced × Experimentation				0.038*		0.042*
				(0.018)		(0.019)
Mentor-team background match:						
Prob(Race Match)	−0.008	−0.009	−0.223	−0.224	−0.346**	−0.343**
	(0.067)	(0.068)	(0.145)	(0.144)	(0.132)	(0.129)
Gender Match	0.001	0.002	−0.004	−0.004	−0.008	−0.008
	(0.013)	(0.013)	(0.033)	(0.034)	(0.034)	(0.034)
STEM Degree	−0.013	−0.014	−0.051	−0.053	0.041	0.038
	(0.031)	(0.031)	(0.043)	(0.044)	(0.057)	(0.057)
PhD Degree	0.060**	0.058**	0.052	0.051	−0.002	0.001
	(0.024)	(0.024)	(0.034)	(0.032)	(0.049)	(0.047)
Business Degree	−0.015	−0.016	−0.018	−0.013	−0.048	−0.043
	(0.028)	(0.028)	(0.056)	(0.057)	(0.063)	(0.063)
Country	0.013	0.012	−0.035	−0.038	−0.001	−0.003
	(0.018)	(0.017)	(0.039)	(0.040)	(0.036)	(0.037)
N	7,914	7,914	2,393	2,393	2,393	2,393
Mean of DV		0.120		0.565		0.561
Mentor FE	X	X	X	X	X	X
Session FE	X	X	X	X	X	X
Venture FE	X	X				
Startup × Task FE			X	X	X	X

Notes: This table shows supplemental predictors of mentoring decisions. In Columns C7-1 and C7-2, the variable Experimentation is an indicator that equals 1 if at least two of the three prioritized objectives are experiments, the same definition used in Table 4. In Columns C7-3 to C7-6, Experimentation is an indicator that equals 1 if the given objective is an experiment, which is the same definition used in Table 7. In Columns C7-1 and C7-2, standard errors are clustered by mentor. In Columns C7-3 to C7-6, standard errors are two-way clustered by mentor and task. Statistical significance is *(10%), **(5%), or ***(1%).